

**WHAT IS CLAIMED IS:**

1. A power input housing for a power distribution panel comprising:

a body defining a cavity having a first open end and a second open end, the body including a base, opposing sidewalls extending from the base and a center wall extending from the base;

a removable cover mounted to the body;

the cavity being defined by the sidewalls, the base and the removable cover, and being divided longitudinally by the center wall, the center wall substantially parallel to the sidewalls, the sidewalls and base each having a first end adjacent and partially defining the first open end and each having a second end adjacent and partially defining the second open end;

the base having access openings at the first and second ends of the cavity on both sides of the center wall to permit electrical conductors to pass through the base;

the cover having a major surface and a transverse extension, the cover being mountable in either a first position or a second position on the housing, such that when the cover is mounted in the first position the transverse extension closes off the first open end of the cavity and the second open end remains open, and when the cover is mounted in the second position the transverse extension of the cover closes off the second open end of the cavity and the first open end remains open;

a mounting tab projecting outward from the base including a fastener opening; and

the body and the cover being made of an electrically insulative material.

2. The power input housing of claim 1, wherein the cavity is an outer cavity, and further comprising an inner cavity;

the inner cavity defined by an extension of the sidewalls, with the base of the body positioned between the outer and inner cavities, wherein ends of the inner cavity closed by a pair of opposing end walls, the end walls extending from the base proximate the first and second open ends of the outer cavity;

the access openings in the base of the body providing access to the inner cavity.

3. The power input housing of claim 2, wherein the mounting tab is a first mounting tab, and further comprising a second mounting tab, wherein the first and second mounting tabs project outward from the sidewalls.
4. The power input housing of claim 2, wherein the mounting tab is a first mounting tab, and further comprising a second mounting tab, wherein the first and second mounting tabs project outward from the end walls.
5. The power input housing of claim 2, wherein the cover has four sides, the transverse extension positioned along one side, and further comprising a lip extending from the major surface along each of the other three sides.
6. The power input housing of claim 5, wherein the transverse extension includes first and second side lips.
7. The power input housing of claim 2, wherein the major surface of the removable cover includes a fastener hole.
8. A power distribution panel comprising:
  - a panel housing including a front and a rear;
  - the front including circuit control devices;
  - the rear including a power input assembly and a power output assembly;
  - the power input assembly including first and second parallel channels each defining first and second open ends, and a cover including a major surface and a transverse extension, the cover mountable in one of two selectable positions wherein in the first position the first open ends are closed and in the second position the second open ends are closed.

9. The power distribution panel of claim 8, wherein the power input assembly includes first and second outer walls, and an inner center wall between the first and second outer walls, the first and second outer walls and the inner wall defining the first and second parallel channels.

10. The power distribution panel of claim 9, wherein the inner wall defines a first fastener opening, and the cover defines a second fastener opening alignable with the first fastener opening in either of two selectable positions of the cover.

11. The power distribution panel of claim 9, wherein the cover has four sides, the transverse extension positioned along one side, and further comprising a lip extending from the major surface along each of the other three sides.

12. The power distribution panel of claim 11, wherein the transverse extension includes first and second side lips.

13. The power distribution panel of claim 8, wherein the cover has four sides, the transverse extension positioned along one side, and further comprising a lip extending from the major surface along each of the other three sides.

14. The power distribution panel of claim 13, wherein the transverse extension includes first and second side lips.

15. The power distribution panel of claim 8, wherein the power input assembly includes mounting tabs defining fastener holes for mounting the power input assembly to the rear of the panel housing.

16. A power input assembly comprising:

a housing including a cavity, the cavity defined by opposing sidewalls, a base and a removable cover, the cavity having a first open end and an opposite second open end;

the cavity including a longitudinally extending power chamber and a longitudinally extending return chamber;

the power chamber having a conductor which passes through the base of the cavity and adapted for receiving a conductor from a power terminal of an electrical power source, and the return chamber having a conductor which passes through the base of the cavity and adapted for receiving a conductor from a return terminal of the electrical power source;

the cover having a transverse extension and being mountable in either a first position or a second position on the housing, such that when the cover is mounted in the first position the transverse extension closes off the first open end of cavity and the second open end of the cavity remains open, and when the cover is mounted in the second position the transverse extension closes off the second open of the cavity and the first open end remains open.

17. The power input assembly of claim 16, further comprising wires from the electrical power source, wherein the wires extend through one of the first and second open ends of the cavity and are attached to the conductors, and the cover is mounted in the second or the first position, respectively.

18. The power input assembly of claim 16, wherein the housing includes a mounting tab projecting outward from the base.

19. The power input assembly of claim 16, wherein the housing includes two mounting tabs, with one mounting tab extending from the base proximate the first open end and one mounting tab extending from the base proximate the second open end.

20. The power input assembly of claim 16, wherein the housing includes two mounting tabs, with one mounting tab extending from the base proximate each of the sidewalls.

21. A method of attaching power cables to a power distribution device, the method comprising the steps of:

providing a power input assembly mounted to the power distribution panel, the power input assembly including:

a housing including a cavity having a first open end and a second open end on opposite sides of the housing;

the cavity defining a power chamber having a conductor which passes into the power distribution panel for connecting with a wire from a power terminal of an electrical power source, and a return chamber having a conductor which passes into the power distribution panel for connecting with a wire from a return terminal of an electrical power source;

positioning power and return cables in the respective first and second open ends of the housing;

attaching the power cable to the conductor in the power chamber;

attaching the return cable to the conductor in the return chamber; and

placing a cover on the housing wherein the cover has a transverse extension to close off the other of the first and second open ends of the cavity.

22. The method of claim 21, wherein the first and second open ends are oriented vertically.

23. The method of claim 21, wherein the first and second open ends are oriented horizontally.